

Title (en)

A CUTTING APPARATUS FOR A NONCIRCULAR CROSS SECTION

Publication

**EP 0354639 A3 19910911 (EN)**

Application

**EP 89304112 A 19890425**

Priority

JP 19725188 A 19880809

Abstract (en)

[origin: EP0354639A2] In a machine tool for cutting a non-circular cross section on a workpiece, sensing means are provided to detect the rotational angle of the main shaft which rotates the workpiece and the signals thus obtained are used to control the longitudinal displacement of a non-rotary tool shaft disposed perpendicularly to the main shaft and which can advance and retreat axially relatively to the main shaft axis but cannot be rotated. An armature on the tool shaft lies between a pair of electromagnets that are energized in accordance with the signals indicating the rotational angle of the main shaft and thereby the tool shaft is displaced longitudinally accordingly. The axial position and the speed of longitudinal displacement of the tool shaft are also sensed to obtain feedback for stabilizing the travel and positioning of the tool.

IPC 1-7

**G05B 19/18**

IPC 8 full level

**B23B 5/24** (2006.01); **G05B 19/18** (2006.01)

CPC (source: EP KR US)

**B23B 5/00** (2013.01 - KR); **G05B 19/184** (2013.01 - EP US); **Y10T 82/13** (2015.01 - EP US); **Y10T 82/2541** (2015.01 - EP US)

Citation (search report)

[X] US 4653360 A 19870331 - COMPTON RONALD E [US]

Cited by

US7765905B2; US7275468B2; US7574947B2; US7437980B2; US7616084B2; WO2005002788A3

Designated contracting state (EPC)

BE CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)

**EP 0354639 A2 19900214**; **EP 0354639 A3 19910911**; **EP 0354639 B1 19960619**; AU 3321089 A 19900215; AU 605689 B2 19910117; BR 8902811 A 19900904; CA 1315576 C 19930406; CN 1016240 B 19920415; CN 1040162 A 19900307; DE 68926700 D1 19960725; DE 68926700 T2 19970123; ES 2088892 T3 19961001; KR 900002879 A 19900323; KR 930002408 B1 19930330; MX 172388 B 19931215; US 5022294 A 19910611

DOCDB simple family (application)

**EP 89304112 A 19890425**; AU 3321089 A 19890419; BR 8902811 A 19890613; CA 601324 A 19890531; CN 89103327 A 19890513; DE 68926700 T 19890425; ES 89304112 T 19890425; KR 890005912 A 19890502; MX 1708189 A 19890804; US 33884189 A 19890417